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NEW MEXICO TIMBER PRODUCTION AND MILL RESIDUES, 1974

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ABSTRACT

Roundwood timber production in New Mexico in 1974 was 36 million cubic feet, down substantially from 1969's 47.2 million cubic feet. Saw log production was 27.9 million cubic feet, compared to 39.2 million cubic feet in 1969. Estimated volume of sawmill residues was 21.9 million cubic feet, of which nearly 11 million cubic feet was used, principally for pulp chips.

KEYWORDS: primary wood products, sawtimber, pulpwood, sawmill residues use

Roundwood timber production in New Mexico in 1974 was 36.1 million cubic feet, down 24 percent from 1969, and 29 percent less than the record high of 1966 (fig. 1).

Saw logs, as in past years, were the major timber product in 1974 (table 1). Saw log production in the State was 27.9 million cubic feet (178.7 million board feet).[1] This volume was down 72.7 million board feet from 1969, and 92.8 million board feet from 1966. Production of all other roundwood products combined was 8.2 million cubic feet, nearly the same as in 1969.

Ponderosa pine accounted for more than 63 percent of sawmill log receipts (table 2). Douglas-fir and true firs together made up an additional 31 percent. Other species milled included Engelmann spruce and aspen.

The State's three leading saw log producing counties were, in order, Catron, Rio Arriba, and Otero, together contributing about 70 percent of the total. Sandoval County, the leading county in 1969, recorded a significant 82 percent decrease from its 1969 saw log production.

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[1] International 1/4-inch log rule is used throughout this report for board-foot volume of roundwood, unless otherwise specified.

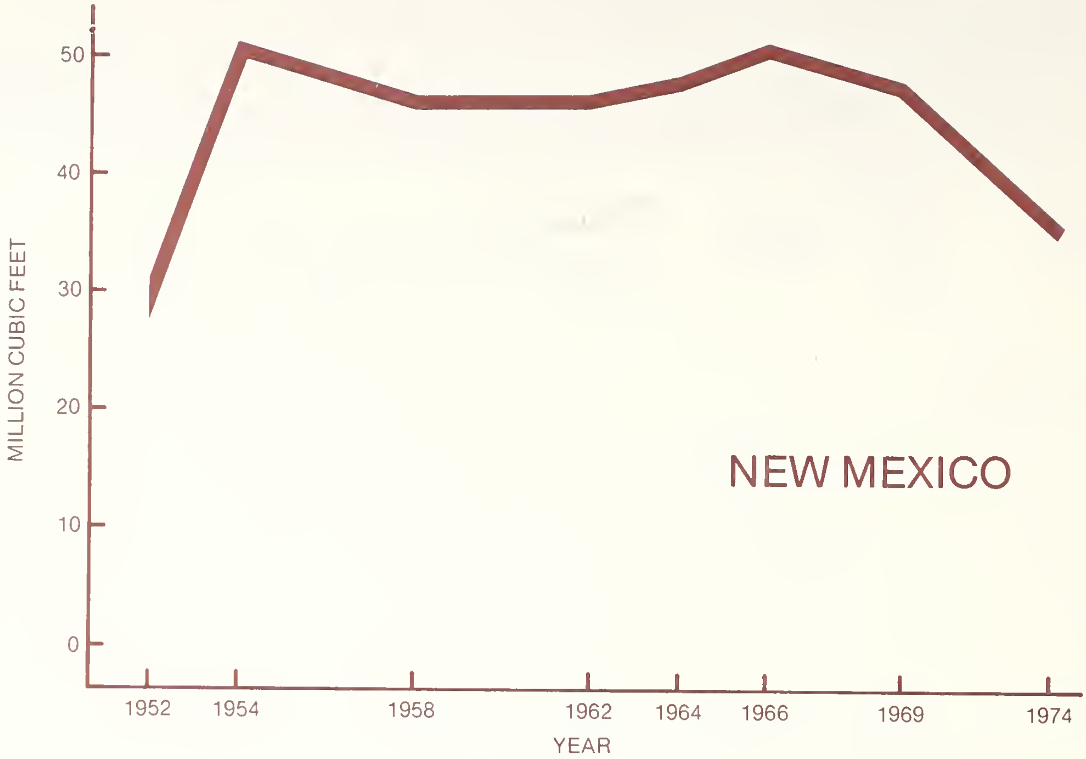

Figure 1.--Roundwood harvest, 1952-1974. Plotted volumes through 1969 are from Setzer (1971).

Table 1.--*Roundwood harvest from New Mexico timberlands by species and product, 1974*

Product	Species						All species	
	True firs	Engelmann spruce	Ponderosa pine	Douglas-fir	Aspen	Other species[1]	Volume	Percent
	Thousand cubic feet							
Saw logs	2,048	1,256	17,624	6,585	345	13	27,871	77.2
Miscellaneous industrial wood[2]	--	--	531	--	67	1	599	1.7
Posts, fuelwood, miscellaneous farm timbers	--	--	621	--	--	6,980	7,601	21.1
Total	2,048	1,256	18,776	6,585	412	6,994	36,071	100.0
Percent of total	5.6	3.5	52.1	18.3	1.1	19.4	100.0	

[1] Includes juniper and pinyon pine.
[2] Includes commercial poles, house logs, and mine timbers.

Table 2.--*Mill receipts of saw logs from New Mexico timberlands by species and county of origin, 1974*

County	Species						All species	
	True firs	Engelmann spruce	Ponderosa pine	Douglas-fir	Other softwoods	Aspen	Volume	Percent
	Thousand board feet, International 1/4-inch rule							
Catron	962	287	43,913	4,318	56	--	49,536	27.7
Colfax	26	1,142	8,050	4,046	--	--	13,264	7.4
McKinley	580	--	2,318	--	--	--	2,898	1.6
Mora	1,018	223	2,007	1,216	--	--	4,464	2.5
Otero	4,489	24	17,602	12,772	--	--	34,887	19.5
Rio Arriba	5,493	4,357	21,516	7,925	27	2,207	41,525	23.3
Sandoval	--	--	6,068	4,695	--	--	10,763	6.0
San Miguel	524	1,330	1,440	150	--	--	3,444	1.9
Santa Fe	21	--	548	27	--	--	596	.4
Sierra	--	--	776	--	--	--	776	.5
Socorro	--	--	1,128	282	--	--	1,410	.8
Taos	11	692	2,485	2,204	--	8	5,400	3.0
Valencia	--	--	5,120	4,571	--	--	9,691	5.4
Total	13,124	8,055	112,971	42,206	83	2,215	178,654	100.0
Percent of total	7.4	4.5	63.2	23.6	.1	1.2	100.0	
	Thousand board feet, Scribner							
Catron	853	254	38,924	3,827	50	--	43,908	27.7
Colfax	23	1,012	7,135	3,586	--	--	11,756	7.4
McKinley	514	--	2,055	--	--	--	2,569	1.6
Mora	903	198	1,779	1,078	--	--	3,958	2.5
Otero	3,979	21	15,602	11,321	--	--	30,923	19.5
Rio Arriba	4,869	3,862	19,072	7,025	24	1,956	36,808	23.3
Sandoval	--	--	5,379	4,162	--	--	9,541	6.0
San Miguel	465	1,179	1,276	133	--	--	3,053	1.9
Santa Fe	19	--	486	24	--	--	529	.4
Sierra	--	--	688	--	--	--	688	.5
Socorro	--	--	1,000	250	--	--	1,250	.8
Taos	9	613	2,203	1,954	--	7	4,786	3.0
Valencia	--	--	4,538	4,052	--	--	8,590	5.4
Total	11,634	7,139	100,137	37,412	74	1,963	158,359	100.0
Percent of total	7.4	4.5	63.2	23.6	.1	1.2	100.0	

Table 3.--*Estimated volume of used and unused residues from sawmills in New Mexico*

Residues	Total		Unused		Used	
	1969	1974	1969	1974	1969	1974
	Thousand cubic feet					
Bark	6,173	4,989	6,093	3,264	80	1,725
Coarse[1]	9,681	8,126	3,750	2,543	5,931	5,583
Fine[2]	10,455	8,750	10,413	5,109	42	3,641

[1] Material suitable for chipping such as slabs, edgings, and trimmings.

[2] Material such as sawdust and shavings.

About 61 percent of 1974's timber harvest came from National Forest lands (table 3), the balance came largely from private land. In 1966, only 51 percent came from National Forest lands.

The estimated volume of sawmill residues utilized in 1974 was 10.9 million cubic feet, about 50 percent of the total available (table 3). In 1969, 23 percent of the volume was used. Nearly 70 percent of the coarse residues were used, mainly for pulp chips, but some for fuel.

Timber production from growing stock in New Mexico in 1974 was 28.1 million cubic feet, less than one percent of the net growing stock volume on commercial forest land. Figure 2 shows timber production for two selected years, net annual growth, and annual mortality. Estimates of commercial forest land area, growing stock volume, growth, mortality, and salvable dead volumes are for 1970 (Green and Setzer 1974). Timber production was less than 30 percent of gross growth and less than 50 percent of net growth in 1974. We conclude that New Mexico could increase timber harvesting without exceeding a sustainable level.

Volume of products from dead trees was 7.6 million cubic feet, which is about 16 percent of annual mortality or 2.2 percent of the State's volume of salvable dead trees. Timber production could be increased by capturing more new mortality and by utilizing more of the existing salvable dead trees.

Average stocking of New Mexico's commercial forest land including all classes of timber is 1,282 cubic feet per acre. Because partial cutting is commonly used in the State, the average cut per acre is assumed to be about 500 cubic feet (2,500 board feet). Cutting at this rate would require about 72,000 acres to yield the 1974 harvest volume.

There is an opportunity for increasing annual timber production in New Mexico if the potential productivity of the commercial forest land can be reached and maintained. An estimate of potential annual productivity for New Mexico is 261.9 million cubic feet. It was calculated by multiplying the midpoint cubic foot value of each site class by its associated area (Green and Setzer 1974) and summing the products. Expressed in terms of production per acre of commercial forest land, the harvest volume in 1974 was calculated as 6.44 cubic feet, or 29.6 percent of gross growth on commercial forest land. At the full potential level of gross growth, about 13.8 cubic feet per acre could be harvested on commercial forest land without cutting more than 29.6 percent of gross growth. This would amount to an increase in harvest of more than 41 million cubic feet per year for the State.

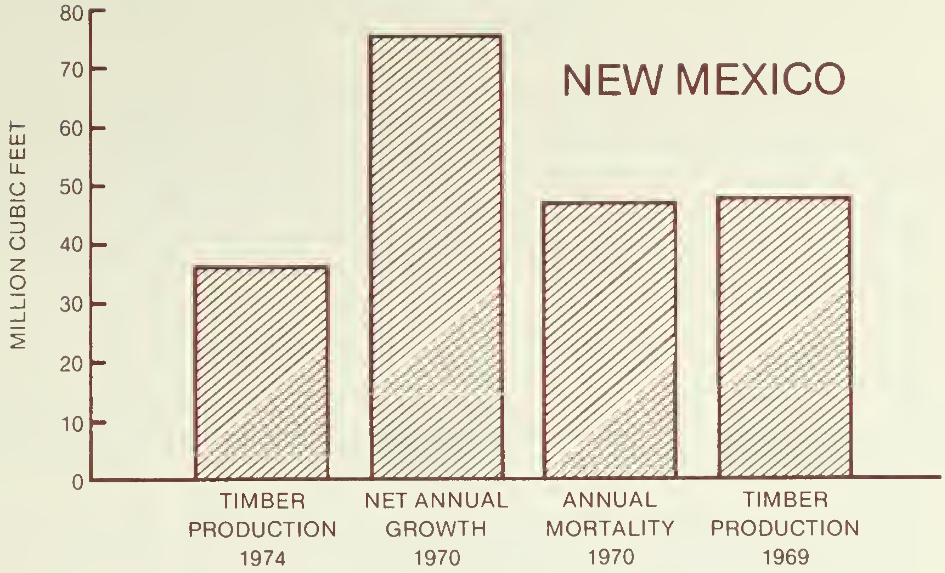

Figure 2.--Relationship of New Mexico timber production for 1974 and 1969, net annual growth, and annual mortality.

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GLOSSARY

Commercial forest land	Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization. (Areas qualifying as commercial forest land have the capability of producing in excess of 20 cubic feet per acre per year of industrial wood under management. Inaccessible areas and areas that cannot be harvested with available equipment are included, except when the areas involved are small and unlikely to become suitable for production of industrial wood in the foreseeable future.)
Gross growth	Annual increase in net volume of trees in the absence of cutting and mortality.
Growing-stock trees	Live trees of commercial species meeting specified standards of quality or vigor; excludes cull trees.
Net annual growth	The increase in net volume of a specified size class for a specific year. (Components of net annual growth include the increment in net volume of trees at the beginning of the specific year surviving to its end, plus net volume of trees reaching the size class during the year, minus the net volume of trees that died during the year, minus the net volume of trees that became rough or rotten trees during the year.)
Mill residues	Wood materials from manufacturing plants not utilized for the mill's primary product. (In this report, includes slabs, edgings, trimmings, miscuts, sawdust, and shavings.)
Roundwood products	Logs, bolts, or other round sections cut from trees for industrial or consumer uses. (In this report, includes saw logs, pulpwood, fuelwood, piling, poles, hewn ties, mine timbers, and various other round, split, or hewn products.)
Site class	A classification of forest land in terms of inherent capacity to grow crops of industrial wood.
Timber production	Production of roundwood timber products.

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